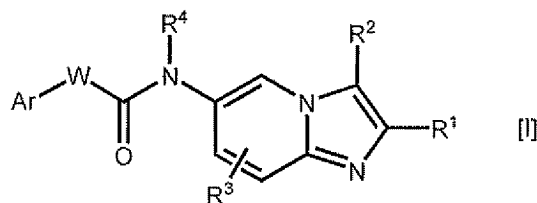


IN THE CLAIMS

Claims 1-19. (Cancelled).

20. (Currently Amended) A compound of formula [I]



wherein:

each R^1 and R^2 are independently selected from the group consisting of:

- (1) hydrogen
- (2) halogen
- (3) C_{1-6} alkyl
- (4) C_{3-8} cycloalkyl- C_{0-4} alkyl
- (5) C_{1-6} alkylamino
- (6) di- C_{1-6} alkylamino
- (7) C_{1-6} alkylcarbonylamino
- (8) C_{1-6} alkylcarbonyl-(C_{1-6} alkyl)amino, and
- (9) 3 to 8-membered heterocycloalkyl- C_{0-4} alkyl,

wherein the C_{1-6} alkyl moiety may be substituted with R^5 , the cycloalkyl or heterocycloalkyl moiety may be substituted with R^6 , and R^1 and R^2 are not hydrogen at the same time, or

R^1 and R^2 together form $-(CH_2)_m-$, m standing for an integer of 3 – 6, wherein 1 or 2 hydrogen atoms constituting methylene may be substituted with R^6 ;

R^3 is hydrogen, halogen, C_{1-6} alkyl or C_{1-6} alkyloxy;

R^4 is hydrogen or C_{1-6} alkyl;

each R^5 is independently selected from the group consisting of halogen, cyano, hydroxyl, amino, optionally fluorine- or hydroxyl-substituted C_{1-6} alkyl, mono- C_{1-6} alkylamino, di- C_{1-6} alkylamino, optionally fluorine-substituted C_{1-6} alkyloxy, C_{1-6} alkyloxy- C_{1-6} alkyl, C_{1-6} alkyloxycarbonyl, C_{1-6} alkyloxy- carbonylamino, C_{1-6} alkyloxycarbonyl-(C_{1-6} alkyl)amino, C_{1-6} alkylcarbonyl, C_{1-6} alkylcarbonyloxy, C_{1-6} alkylcarbonylamino, C_{1-6} alkylcarbonyl-(C_{1-6} alkyl)amino, carbamoyl, mono- C_{1-6} alkylcarbamoyl, di- C_{1-6} alkylcarbamoyl, carbamoylamino, mono- C_{1-6} alkylcarbamoylamino, di- C_{1-6} alkylcarbamoylamino, mono- C_{1-6} alkylcarbamoyl-(C_{1-6}

alkyl)amino, di-C₁₋₆ alkylcarbamoyl-(C₁₋₆ alkyl)amino, carbamoyloxy, mono-C₁₋₆ alkylcarbamoyloxy, di-C₁₋₆ alkylcarbamoyloxy, C₁₋₆ alkylsulfonyl, C₁₋₆ alkylsulfonylamino, C₁₋₆ alkylsulfonyl-(C₁₋₆ alkyl)amino, sulfamoyl, mono-C₁₋₆ alkylsulfamoyl, di-C₁₋₆ alkylsulfamoyl, sulfamoylamino, mono-C₁₋₆ alkylsulfamoylamino, di-C₁₋₆ alkylsulfamoylamino, mono-C₁₋₆ alkylsulfamoyl-(C₁₋₆ alkyl)amino, di-C₁₋₆ alkylsulfamoyl-(C₁₋₆ alkyl)amino and pyridone;

R⁶ is R⁵ or oxo;

W is:

- (1) ~~linker (single bond)~~ 1, 4-piperidin-di-yl,
- (2) mono- or bi-cyclic, 3 to 8-membered aromatic or ~~aliphatic~~ heterocyclic group,
- (3) mono- or bi-cyclic, 3 to 8 membered aromatic or aliphatic carbocyclic group,
- (4) C₂₋₄ alkylene in which the carbon in the main chain may be substituted with oxygen, or
- (5) C₂₋₄ alkenylene in which the carbon in the main chain may be substituted with oxygen,

wherein those substituents in above (2) through (5) may be optionally substituted with R⁵; and

Ar is an ~~optionally~~ R⁷-substituted aromatic carbocyclic group or aromatic heterocyclic group, said aromatic carbocyclic group or aromatic heterocyclic group selected from the group consisting of:

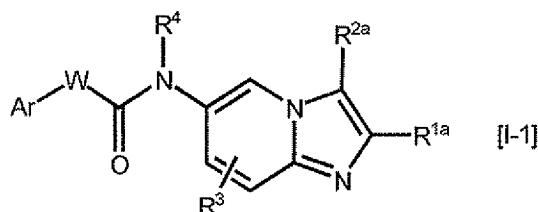
- (1) phenyl,
- (2) naphthyl,
- (3) pyridinyl,
- (4) pyrimidinyl,
- (5) pyridazinyl,
- (6) pyrazyl,
- (7) pyrazole,
- (8) pyrrolyl,
- (9) imidazolyl,
- (10) triazolyl,
- (11) oxazolyl,
- (12) isoxazolyl,
- (13) oxadiazolyl,
- (14) thiazolyl,
- (15) isothiazolyl,
- (16) thiadiazolyl, and

(17) tetrazolyl;

wherein R^7 is selected from R^5 ;

or a pharmaceutically acceptable salt thereof.

21. (Previously Presented) The compound according to Claim 20 of formula [I-1]



wherein:

R^{1a} and R^{2a} are each independently selected from the group consisting of:

- (1) hydrogen,
- (2) halogen,
- (3) C_{1-6} alkyl,
- (4) C_{3-8} cycloalkyl- C_{0-4} alkyl,
- (5) C_{1-6} alkylamino,
- (6) di- C_{1-6} alkylamino,
- (7) C_{1-6} alkylcarbonylamino,
- (8) C_{1-6} alkylcarbonyl-(C_{1-6} alkyl)amino, and
- (9) 3 to 8-membered heterocycloalkyl,

wherein the C_{1-6} alkyl moiety may be substituted with R^{5a} , the cycloalkyl or heterocycloalkyl moiety may be substituted with R^6 , and R^{1a} and R^{2a} are not hydrogen at the same time, or

R^{1a} and R^{2a} together form $-(CH_2)_m-$, wherein m is an integer from 3 to 6, and wherein 1 or 2 hydrogen atoms constituting methylene may be substituted with R^6 ;

each R^{5a} is independently selected from the group consisting of halogen, cyano, hydroxyl, optionally fluorine- or hydroxyl-substituted C_{1-6} alkyl, optionally fluorine-substituted C_{1-6} alkoxy, C_{1-6} alkoxy- C_{1-6} alkyl, C_{1-6} alkoxycarbonyl, C_{1-6} alkoxy-carbonylamino, C_{1-6} alkoxycarbonyl-(C_{1-6} alkyl)amino, C_{1-6} alkylcarbonyl, C_{1-6} alkylcarbonyloxy, C_{1-6} alkylcarbonylamino, C_{1-6} alkylcarbonyl-(C_{1-6} alkyl)amino, carbamoyl, mono- C_{1-6} alkylcarbamoyl, di- C_{1-6} alkylcarbamoyl, carbamoylamino, mono- C_{1-6} alkylcarbamoylamino, di- C_{1-6} alkylcarbamoylamino, mono- C_{1-6} alkylcarbamoyl-(C_{1-6} alkyl)amino, di- C_{1-6} alkylcarbamoyl-(C_{1-6} alkyl)amino, carbamoyloxy, mono- C_{1-6} alkylcarbamoyloxy, di- C_{1-6} alkylcarbamoyloxy, C_{1-6}

alkylsulfonyl, C₁₋₆ alkylsulfonylamino, C₁₋₆ alkylsulfonyl-(C₁₋₆ alkyl)amino, sulfamoyl, mono-C₁₋₆ alkylsulfamoyl, di-C₁₋₆ alkylsulfamoyl, sulfamoylamino, mono-C₁₋₆ alkylsulfamoylamino, di-C₁₋₆ alkylsulfamoylamino, mono-C₁₋₆ alkylsulfamoyl-(C₁₋₆ alkyl)amino, di-C₁₋₆ alkylsulfamoyl-(C₁₋₆ alkyl)amino and pyridone, and

R³, R⁴, R⁶, W and Ar are as defined in Claim 20

or a pharmaceutically acceptable salt thereof.

22. (Previously Presented) The compound according to Claim 20, wherein R¹ is C₁₋₆ alkyl, C₁₋₆ cycloalkyl, C₁₋₆ alkylamino, di-C₁₋₆ alkylamino or C₁₋₆ alkylcarbonyl-(C₁₋₆ alkyl)amino, or a pharmaceutically acceptable salt thereof.

23. (Previously Presented) A compound according to Claim 20, wherein R² is hydrogen, C₁₋₆ alkyl, C₁₋₆ cycloalkyl, C₁₋₆ alkylamino, di-C₁₋₆ alkylamino or C₁₋₆ alkylcarbonyl- (C₁₋₆ alkyl)amino, or a pharmaceutically acceptable salt thereof.

24. (Previously Presented) A compound according to Claim 21, wherein R^{1a} is C₁₋₆ alkyl, C₁₋₆ cycloalkyl, C₁₋₆ alkylamino, di-C₁₋₆ alkylamino or C₁₋₆ alkylcarbonyl-(C₁₋₆ alkyl)- amino, or a pharmaceutically acceptable salt thereof.

25. (Previously Presented) A compound according to Claim 21, wherein R^{2a} is hydrogen, C₁₋₆ alkyl, C₁₋₆ cycloalkyl, C₁₋₆ alkylamino, di- C₁₋₆ alkylamino or C₁₋₆ alkylcarbonyl-(C₁₋₆ alkyl)- amino, or a pharmaceutically acceptable salt thereof.

26. (Previously Presented) A compound according to Claim 20, wherein the 3 to 8-membered heterocycloalkyl moiety is selected from the group consisting of tetrahydrofuranyl, tetrahydropyranyl, pyrrolidinyl and piperidinyl.

27. (Previously Presented) A compound according to Claim 20, wherein R³ is hydrogen, methyl or methoxy, or a pharmaceutically acceptable salt thereof.

28. (Previously Presented) A compound according to Claim 20, wherein R⁴ is hydrogen or methyl, or a pharmaceutically acceptable salt thereof.

29. (Previously Presented) A compound according to Claim 20, wherein W is selected from the group consisting of 1,2-dimethylene, 1,4-phenylene, 2-fluoro-1,4-phenylene, pyridin-2,5-di-yl, pyrimidin-2,5-di-yl, pyrazin-2,5-di-yl, 1,4-piperidin-di-yl, 1,2,4-triazol-1,3-di-yl, 1,4-cyclohexylene and oxymethylene, or a pharmaceutically acceptable salt thereof.

30. (Previously Presented) A compound according to Claim 20, in which Ar is selected from the group consisting of pyrrol-1-yl, phenyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, 4-chlorophenyl, 3,4-difluorophenyl, 2,4-difluorophenyl, 2-trifluoromethylphenyl, 3-trifluoromethylphenyl, 4-trifluoromethylphenyl, 4-methoxyphenyl, 4-methanesulfonylphenyl, pyridin-2-yl, 3-methylpyridin-6-yl, 2-fluoropyridin-5-yl, 3-fluoropyridin-6-yl, 3-chloropyridin-6-yl, 2-difluoromethylpyridin-5-yl, 3-difluoromethylpyridin-6-yl, 2-methoxypyridin-5-yl, 2-methoxypyridin-6-yl, 3-methoxypyridin-6-yl, 2-difluoromethoxypyridin-5-yl, 3-difluoromethoxypyridin-6-yl, 3-trifluoromethylpyridin-6-yl, 2-trifluoromethylpyridin-5-yl, 2-pyrimidinyl, 2-pyrazinyl and 3-pyridazinyl, or a pharmaceutically acceptable salt thereof.

31. (Previously Presented) A compound according to Claim 20, which is N-(2,3-dimethylimidazo[1,2-a]pyridin-6-yl)-4'-(trifluoromethyl)[1,1'-biphenyl]-4-carboxamide, or a pharmaceutically acceptable salt thereof.

32. (Previously Presented) A compound according to Claim 20, which is N-(2-cyclopropyl-3-methylimidazo[1,2-a]pyridin-6-yl)-4-(2-pyridyl)benzamide, or a pharmaceutically acceptable salt thereof.

33. (Previously Presented) A compound according to Claim 20, which is N-(2-cyclopropyl-3-methylimidazo[1,2-a]pyridin-6-yl)-4-(1H-pyrro-1-yl)benzamide, or a pharmaceutically acceptable salt thereof.

34. (Cancelled).

35. (Currently Amended) The method of inhibiting binding of melanin concentrating hormone to a melanin concentrating hormone receptor ~~treating a disease mediated by the melanin concentrating hormone receptor~~ comprising administering to a patient ~~in need of such treatment~~ a therapeutically effective amount of a melanin concentrating hormone receptor antagonist compound according to Claim 20, or a pharmaceutically acceptable salt thereof.

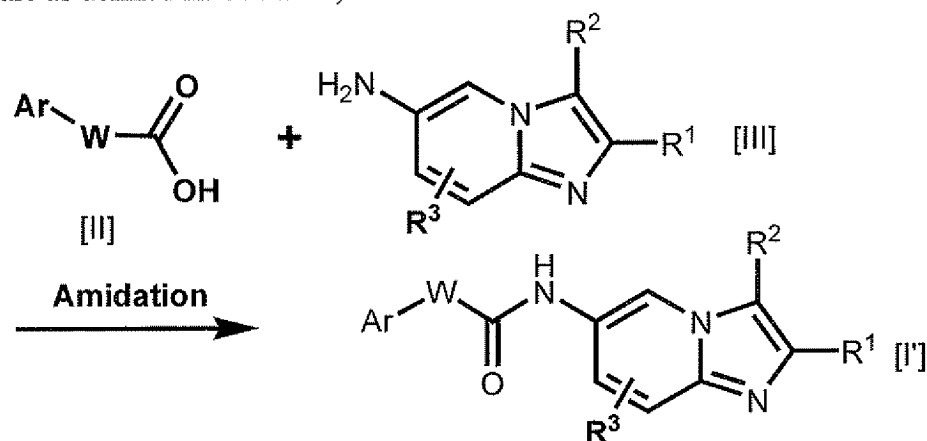
36. (Previously Presented) The pharmaceutical composition comprising a compound according to Claim 20, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

37. (Cancelled).

38. (Currently Amended) The method of ~~preventing or~~ treating obesity in a patient in need thereof comprising administering to said patient a therapeutically ~~or prophylactically~~-effective amount of a compound according to Claim 20, or a pharmaceutically acceptable salt thereof.

39. (New) A method for producing a compound according to Claim 20 of formula [I] which comprises the steps of:

(1) amidating a compound represented by a general formula [II], wherein Ar and W are as defined in Claim 20, with a compound represented by a general formula [III] wherein R¹, R² and R³ are as defined in Claim 20; and



(2) optionally condensing, where R⁴ is not hydrogen, the compound as obtained in the above step with a compound represented by a general formula [IV], wherein X₁ is a leaving group and R⁴ is defined in Claim 20:

